

Work Order ID 83829-2
Thursday, April 26, 2012 1:08:03 PM

83829

Page 1

Item ID: D4463-041

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Tank Top Assembly

Start Date: 4/26/2012 Start Qty: 4.00

4

Cust Item ID:

Required Date: 5/3/2012 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan: MFE

Date: 12-04-28

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D4463

C

100

0.00

100

FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg

Dwg Rev: E

Prog Rev: E

2-Deburr if necessary

6061 . 063

4

0

Jm/nm
12-5-3

110

0.00

110

QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

4

0

Jm/nm
12-5-3

120

0.00

120

QC8- Inspect parts - second check

QC

Memo

0.00

Quality Control

8.765103

76

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
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NOTE: Date & initial all entries

Work Order ID 83829

Thursday, April 26, 2012 1:08:03 PM

83829

Page 3

Item ID: D4463-041

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Tank Top Assembly

Start Date: 4/26/2012 Start Qty: 4.00

4

Cust Item ID:

Required Date: 5/3/2012 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC7-Inspect Chemical Conversion Coat

0.00

160

QC

Memo

0.00

Quality Control

2x

12/08/22

170

0.00

170

Small Fab

Memo

0.00

Small Fab

INSTALL ANCHOR NUTS AS PER DWG

2x

12/08/22

180

QC5- Inspect part completeness to step on W/O

0.00

180

QC

Memo

0.00

Quality Control

Smb
12-8-22DAS
16
12/08/22

2

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

Work Order ID 83829***83829***

Page 4

Thursday, April 26, 2012 1:08:03 PM

Item ID: D4463-041

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Tank Top Assembly

Start Date: 4/26/2012 Start Qty: 4.00

4

Cust Item ID:

Required Date: 5/3/2012 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--|----------------------|---------|--------|--------------|---------------|---------------|------------------|-----------------|
| 190 | Identify as per dwg & Stock Location: <u>WMA</u> | 0.00 | | | | 2 | 0 | | <u>12-08-22</u> |
| *190* | | | | | | | | | |
| Packaging | Memo | 0.00 | | | | | | | |
| Packaging | | | | | | | | | |
| 200 | QC21- Final Inspection - Work Order Release | 0.00 | | | | | | | |
| *200* | | | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |

MLJ 12/08/23ME 12-08-23

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

Picklist Print

Thursday, April 26, 2012 1:08:02 PM

Page 1

Work Order ID: 83829

Parent Item: D4463-041

Parent Item Name: Tank Top Assembly

Start Date: 4/26/2012

Required Date: 5/3/2012

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:A 12.03.08 NEW ISSUE DD VERF:EC
DWG REV.B DD VERF:EC

IPP REV:B 12.04.25 AS PER

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|------------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| M6061T6S.063 6061-T6 .063 Sheet | | Purchased | No | | | 100 | sf | 286.8422 | 3.864 | 15.456 | | | |

Location Loc Qty Loc Code

MAT021 286.8422000
113608 0
116308 6.01556842
117285 67.544
119331 44.2
119802 20.94
120218 21
120866 127.142632

MS20426AD3-3
RIVET

Purchased

No

21578

170 Each 3,280.0000

48 192

Location Loc Qty Loc Code

ST316 3280
104374 614
110398 2666

NAS1473R3

Purchased

No

170 Each 84.0000

24 96

Location Loc Qty Loc Code

GA 60
121287 60
ST278 24
121236 24

Anchor Nut

121578 (15.4) JM 12-5-3
12/08/22
M121011 (500)
12/08/22
M121613 (380)
11/22/11 (100)

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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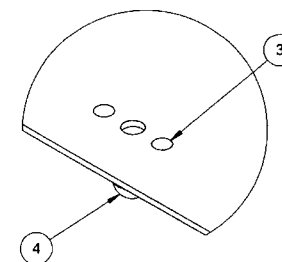
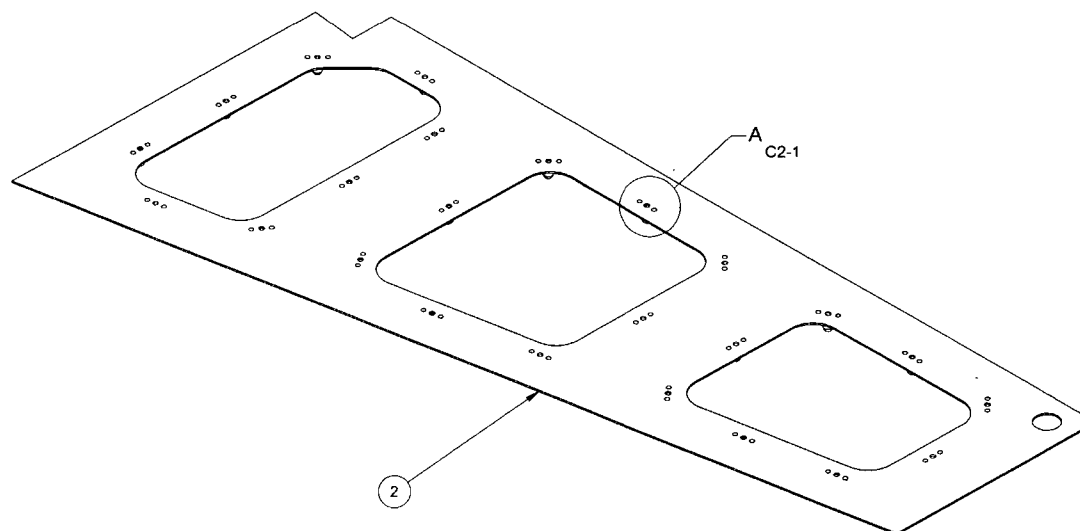
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
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NOTE: Date & initial all entries

| ITEM NO. | QTY. -041 | PART NUMBER | DESCRIPTION |
|----------|--------------|--------------|-------------------|
| 1 | X | D4463-041 | TANK TOP ASSEMBLY |
| 2 | 1 | D4463-1 | TANK TOP |
| 3 | 48 | MS20426AD3-4 | RIVET |
| 4 | 24 | NAS1473R3 | ANCHOR NUT |

83629



DETAIL A
C4-1

D4463-041 TANK TOP ASSEMBLY

RELEASE
N 2012-04-24

- NOTES:**
 1) MATERIAL: N/A
 2) FINISH: N/A
 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 6) IDENTIFICATION: N/A
 7) WEIGHT: 1.76 lbs

| | | | |
|------------|--|---|---------------|
| C | ADD DIMS: ZN B5-5, D5-5, B2-11, B7-11, D3-11 ADD -13, MODIFY -1/-11. | DC | 12.03.23 |
| B | ADD D4463-041, ZN C5-1 UPDATED -1/-3/-5/-7/-9, COMBINED -11 & -13 INTO -11 | DC | 11.12.14 |
| A | NEW ISSUE | DC | 11.10.19 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | DC | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| DRAWN | DC | | |
| CHECKED | DC | DRAWING NO. | REV. C |
| MFG. APPR. | DC | D4463 | SHEET 1 OF 14 |
| APPROVED | DC | TITLE | SCALE |
| DE APPR. | DC | TANK | NTS |
| DATE | 12.03.23 | COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD | |

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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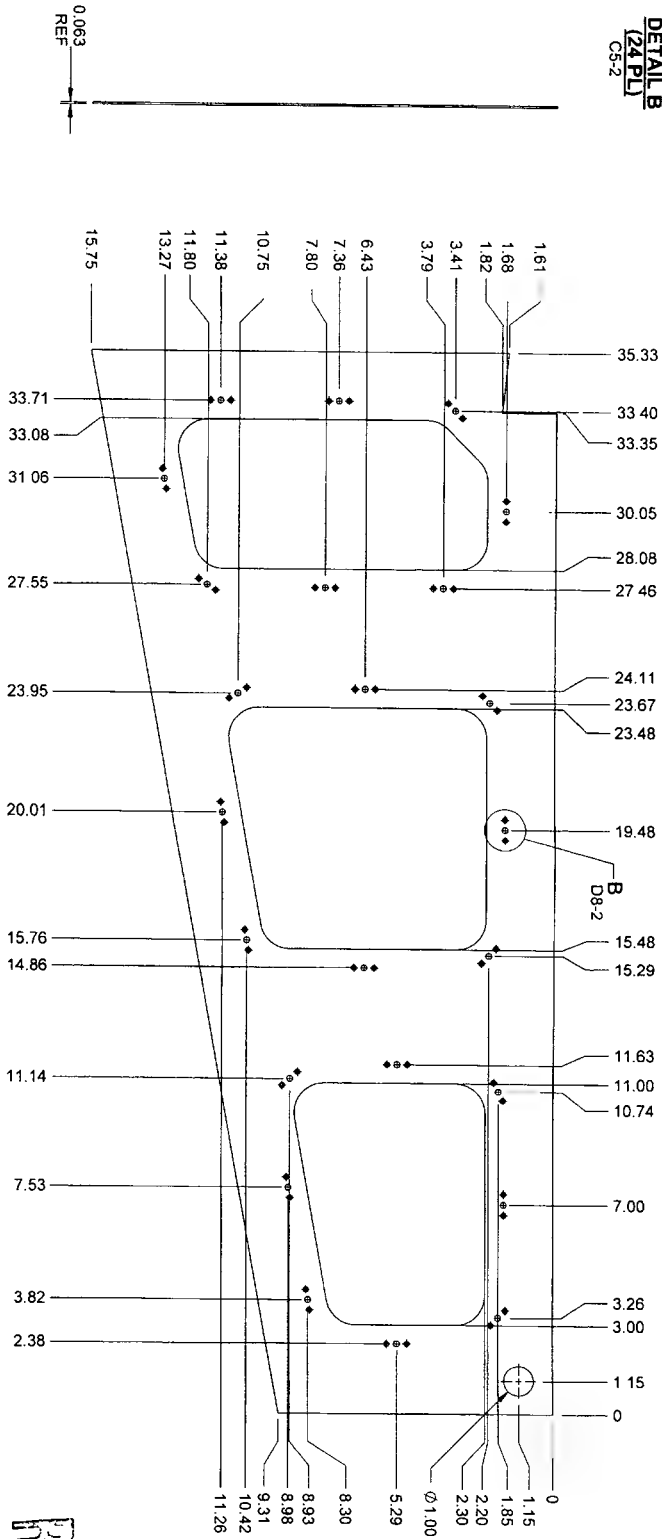
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

DETAIL B
(24 PL)
C5-2



NOTES:
1) MATE

- 1) MATERIAL: 6061-T6/62 ALUMINUM SHEET, 0.063 THICK
PER QQ-A-250/11 OR AMS-QQ-A-250/11
OR AMS 4025 OR AMS 4027 OR ASTM B209
REF DART SPEC M96061T6S.063
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.70 lbs

D4463-1 TANK TOP

| | | | |
|------------|----------|---|---------------|
| DESIGN | PC | DART AEROSPACE LTD | REV. C |
| DRAWN | PC | HAWESBURY, ONTARIO, CANADA | |
| CHECKED | AS | DRAWING NO | |
| MFG. APPR. | B | D4463 | SHEET 2 OF 14 |
| APPROVED | MA | TITLE | SCALE |
| DE APPR. | MA | TANK | NTS |
| DATE | 12.03.23 | DART AEROSPACE LTD 1000 DART ROAD, HAWESBURY, ONTARIO, CANADA THE DRAWING IS THE PROPERTY OF DART AEROSPACE LTD AND IS LOANED TO YOU FOR YOUR INFORMATION ONLY. IT IS NOT TO BE REPRODUCED OR USED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD. | |

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

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|--|-------------------------------|
| DART AEROSPACE LTD | Work Order: 83809 |
| Description: TANK TOP ASSEMBLY | Part Number: D4463-041 |
| Inspection Dwg: D4463-1 , Rev: C | Page 1 of 1 |

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☒ Prototype

| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|-------------------|---------------|------------------|--------|--------|----------------------|-------------------|
| Ø 1.098 | + .004 - .001 | 0.100 | ✓ | | Vern | MB-02 |
| Ø 1.206 | + .005 - .001 | 0.208 | ✓ | | Vern | MB-02 |
| Ø 1.00 | + .012 - .001 | 0.999 | ✓ | | Vern | MB-02 |
| 1.15 | 1/2 Ø30 | 1.162 | ✓ | | Vern | MB-02 |
| 1.85 | 1/2 Ø30 | 1.856 | ✓ | | Vern | MB-02 |
| 2.26 | 1/2 Ø30 | 2.201 | ✓ | | Vern | MB-02 |
| 2.36 | 1/2 Ø30 | 2.315 | ✓ | | Vern | MB-02 |
| 5.29 | 1/2 Ø30 | 5.299 | ✓ | | Vern | MB-02 |
| 8.36 | 1/2 Ø30 | 8.317 | ✓ | | Vern | MB-02 Prod-W-J-02 |
| 8.93 | 1/2 Ø30 | 8.934 | ✓ | | Vern | MB-02 " |
| 8.98 | 1/2 Ø30 | 8.989 | ✓ | | Vern | MB-02 " |
| 9.31 | 1/2 Ø30 | 9.314 | ✓ | | Vern | MB-02 " |
| 10.42 | 1/2 Ø30 | 10.418 | ✓ | | Vern | Prod-W-J-02 |
| 11.26 | 1/2 Ø30 | 11.253 | ✓ | | Vern | Prod-W-J-02 |
| 1.61 | 1/2 Ø30 | 1.614 | ✓ | | Vern | MB-02 |
| 1.68 | 1/2 Ø30 | 1.68 | ✓ | | Vern | MB-02 |
| 1.85 | 1/2 Ø30 | 1.827 | ✓ | | Vern | MB-02 |
| 3.41 | 1/2 Ø30 | 3.416 | ✓ | | Vern | MB-02 |
| 3.79 | 1/2 Ø30 | 3.794 | ✓ | | Vern | MB-02 |
| 6.43 | 1/2 Ø30 | 6.433 | ✓ | | Vern | MB-02 |
| 7.36 | 1/2 Ø30 | 7.374 | ✓ | | Vern | MB-02 |
| 7.86 | 1/2 Ø30 | 7.806 | ✓ | | Vern | MB-02 |
| 10.75 | 1/2 Ø30 | 10.749 | ✓ | | Vern | MB-02 |

| | | |
|-------------------------|----------------------|---------------------|
| Measured by: JM. | Audited by: 8 | Prototype Approval: |
| Date: 12-5-1 | Date: 7/6/03 | Date: |


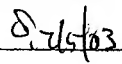
| Rev | Date | Change | Revised by | Approved |
|-----|------|-----------|------------|----------|
| A | | New Issue | KJ/JLM | |

| | | |
|--------------------------------|--|------------------------|
| DART AEROSPACE LTD | | Work Order: 83829 |
| Description: TANK Top Assembly | | Part Number: D4463-041 |
| Inspection Dwg: D4463-1 Rev: C | | Page 1 of 1 |

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☒ Prototype

| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|-------------------|-----------|------------------|--------|--------|----------------------|-------------------|
| 11.38 TL | .030 | 11.382 | ✓ | | Vern | HB-02 |
| 11.80 TL | .030 | 11.808 | ✓ | | Vern | HB-02 |
| 13.27 TL | .030 | 13.27 | ✓ | | MT | HB-01 |
| 1.15 TL | .030 | 1.153 | ✓ | | Vern | HB-02 |
| 3.00 TL | .030 | 3.011 | ✓ | | Vern | HB-02 |
| 3.26 TL | .030 | 3.265 | ✓ | | Vern | HB-02 |
| 7.00 TL | .030 | 7.008 | ✓ | | Vern | HB-02 |
| 10.74 TL | .030 | 10.758 | ✓ | | Vern | HB-02 Prod-W-3-02 |
| 11.00 TL | .030 | 11.009 | ✓ | | Vern | HB-02 Prod-W-3-02 |
| 11.63 TL | .030 | 11.635 | ✓ | | Vern | Prod-W-3-02 |
| 15.29 TL | .030 | 15.29 | ✓ | | MT | HB-01 |
| 15.48 TL | .030 | 15.48 | ✓ | | MT | HB-01 |
| 19.48 TL | .030 | 19.48 | ✓ | | MT | HB-01 |
| 23.48 TL | .030 | 23.48 | ✓ | | MT | HB-01 |
| 23.67 TL | .030 | 23.67 | ✓ | | MT | HB-01 |
| 24.11 TL | .030 | 24.11 | ✓ | | MT | HB-01 |
| 27.46 TL | .030 | 27.46 | ✓ | | MT | HB-01 |
| 28.08 TL | .030 | 28.08 | ✓ | | MT | HB-01 |
| 30.05 TL | .030 | 30.05 | ✓ | | MT | HB-01 |
| 33.34 TL | .030 | 33.35 | ✓ | | MT | HB-01 |
| 33.46 TL | .030 | 33.40 | ✓ | | MT | HB-01 |
| 35.33 TL | .030 | 35.33 | ✓ | | MT | HB-01 |

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|--|---|---------------------|
| Measured by:  | Audited by:  | Prototype Approval: |
| Date: 12-5-1 | Date: | Date: |



| Rev | Date | Change | Revised by | Approved |
|-----|------|-----------|------------|----------|
| A | | New Issue | KJ/JLM | |

Work Order: 83829

Part Number: D4463-041

Page 1 of 1

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|---|---------------|---|-----------|
| X | First Article | X | Prototype |
|---|---------------|---|-----------|

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| Measured by:  | Audited by:  | Prototype Approval: |
| Date: 12-5-1 | Date: 17/5/03 | Date: |

H:\FORMS\Quality Assurance\approved QA\FAI revD

